

II. Amendments to the Claims

This listing of claims replaces without prejudice all prior versions and listings of claims in the application:

Listing of Claims:

1. (Currently Amended) Method for obtaining highly reactive calcium sorbents from a mixture of fine grained calcium carbonate and ~~and/or~~ fly-ashes, through mechanical de-agglomeration and activation by free particles collisions at the speed at least 8 m/sec., ~~of the mixture containing 20-60%~~ 20-60% by weight, ~~beneficially 40%~~ of fine grained calcium carbonate with grain size below 150 μm and content at least 92% by weight of pure CaCO_3 with fly-ashes, coming ~~coming~~ from combustion of coal fuels, ~~especially in boilers with fluidized bed furnaces or equipped with powdered fuel burners~~, where the dry desulfurization of exhaust gases is used, characterized in that calcium carbonate is being preliminary mixed with ashes containing by weight from 25% to 45% of SiO_2 , from 3% to 25% of Al_2O_3 , from 10% to 40% of CaO , from 5% to 15% of SO_3 , and then the mixture is being mechanically de-agglomerated and activated.

2. (Currently Amended) Method for obtaining ~~the~~ highly reactive calcium sorbents, from a mixture of fine grained calcium carbonate and ~~and/or~~ fly-ashes, through mechanical de-agglomeration and activation by free collisions of particles at the speed at least 8 m/sec of fly-ashes, coming from combustion of coal fuels, ~~especially in boilers with fluidized bed furnaces or equipped with powdered fuel burners~~, where the dry desulfurization of exhaust gases is used, characterized in that ashes containing by weight 25% to 45% of SiO_2 , from 3% to 25% of Al_2O_3 , from 10% to 40% of CaO , from 5% to 15% of SO_3 are mechanically de-agglomerated and activated.

3-5. (Cancelled)

6. (New) The method of claim 1, wherein the mixture containing 40% by weight of fine grained calcium carbonate with grain size below 150 μm .

7. (New) The method of claim 1, wherein the fly-ashes comes from combustion of coal fuels in boilers with fluidized bed furnaces or equipped with powdered fuel burners.

8. (New) The method of claim 2, wherein the fly-ashes comes from combustion of coal fuels in boilers with fluidized bed furnaces or equipped with powdered fuel burners.